

Alaska NAEP Newsletter

2009 NAEP Mathematics Scores Show Little Change from 2007



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"For decades, when elected officials, researchers, educators, and parents have wanted a clear-eyed measure of what students know in a range of subjects, they have turned to an authoritative source: the National Assessment of Educational Progress. "

Education Week, November 16, 2009, Role of NAEP Could Change with Common Assessments.

CONTACT INFO

Jeanne Foy
Alaska NAEP Coordinator
Alaska Department of Education
and Early Development
801 W. 10th St.
POB 110500
Juneau, AK 99811
907-465-8729
Email: Jeanne.Foy@alaska.gov

To learn more about NAEP in Alaska:

Alaska NAEP Website
<http://www.eed.state.ak.us/tls/assessment/naep.html>

- The President, Congress, and policymakers use NAEP to develop ways to improve education.
- NAEP provides a common yardstick for measuring the progress of students' education across the country.

Alaska's grade 4 and grade 8 mathematics scores did not change on the 2009 National Assessment of Educational Progress (NAEP) compared to the 2007 NAEP, but scores are higher compared to 2003, the first administration of the NAEP under the No Child Left Behind Act.

The national public mathematics score for grade 4 also did not change from 2007, while the grade 8 score increased by 2 points from 2007.

On the grade 4 mathematics assessment, seven states and the District of Columbia increased their scores from 2007 and four states showed a decline. On the grade 8 mathematics assessment, 14 states and the District of Columbia increased their scores from 2007 and no states showed a decline.

The average scale score for Alaska for grade 4 mathematics remained 237 for 2009. That is slightly below the national public average scale score of 239. The average scale score for Alaska for grade 8 mathematics remained 283 for 2009. That is statistically the same as the national average scale score of 282.

The average scale scores in Alaska for White, Black, Hispanic, Asian/Pacific Islander, and American

Indian/Alaska Native students showed no statistically significant changes between the 2007 and 2009 NAEP mathematics assessment.

Samples of fourth-graders and eighth-graders in each state were tested on reading and mathematics. Their scores are reported by state averages so states can be compared with each other and to the nation as a whole.

In all, about 10,000 Alaska students took the 2009 NAEP in mathematics and reading. They represent roughly half the state's fourth- and eighth-graders. The reading results will be released in the spring of 2010.



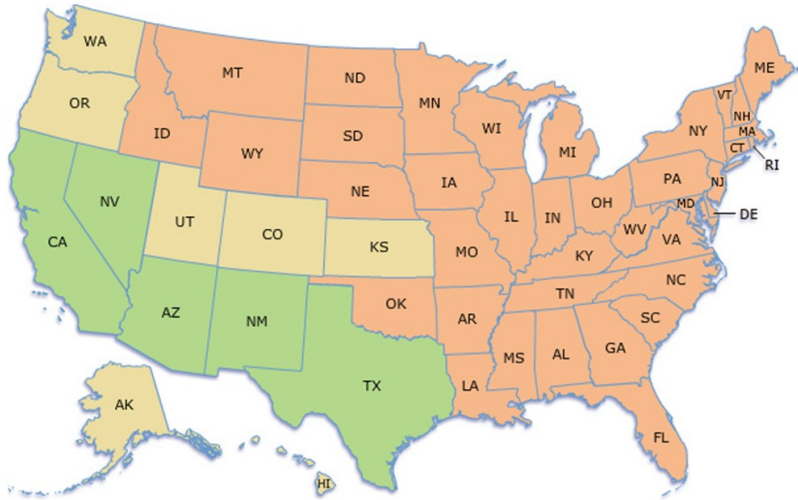
Western States Have Highest Percentages of English Language Learner Students

States Ranked by Percentage of ELL Students

Grade 4		Grade 8	
National Public	10	National Public	6
California	29	California	19
Texas	21	Alaska	10
Nevada	20	New Mexico	10
New Mexico	16	Nevada	8
Arizona	15	Colorado	7
Colorado	11	Arizona	6
Oregon	11	Hawaii	6
Alaska	10	Kansas	6
Hawaii	10	Oregon	6
Washington	10	Texas	6
Kansas	9	Florida	5
Florida	8	Minnesota	5
Minnesota	8	New York	5
Utah	8	North Carolina	5
D.C.	7	Arkansas	4
Illinois	7	Utah	4
Massachusetts	7	Wisconsin	4
New York	7	DoDEA	4
Arkansas	6	Connecticut	3
Nebraska	6	D.C.	3
North Carolina	6	Idaho	3
Rhode Island	6	Illinois	3
Virginia	6	Indiana	3
Wisconsin	6	Montana	3
DoDEA	6	Nebraska	3
Connecticut	5	Oklahoma	3
Idaho	5	Rhode Island	3
Maryland	5	South Carolina	3
South Carolina	5	Virginia	3
Delaware	4	Washington	3
Georgia	4	Delaware	2
Indiana	4	Georgia	2
Iowa	4	Iowa	2
Oklahoma	4	Maine	2
Michigan	3	Maryland	2
Montana	3	Massachusetts	2
New Hampshire	3	Michigan	2
New Jersey	3	New Jersey	2
Pennsylvania	3	Pennsylvania	2
Alabama	2	Wyoming	2
Kentucky	2	Alabama	1
Louisiana	2	Kentucky	1
Missouri	2	Louisiana	1
Ohio	2	Mississippi	1
South Dakota	2	Missouri	1
Tennessee	2	New Hampshire	1
Vermont	2	North Dakota	1
Wyoming	2	Ohio	1
Maine	1	South Dakota	1
Mississippi	1	Tennessee	1
North Dakota	1	Vermont	1
West Virginia	#	West Virginia	#

State Percentages of ELL Students Compared to the National Public Average for Grade 4 Mathematics

States shown in green have a higher percentage than the National Public (10%). States in yellow are not significantly different. States in orange have a lower percentage.



ELL Student Growth Has Outpaced Overall School Growth

In 2006, the National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs reported that the overall school population had grown by just over 3 percent in the previous 10 years and the number of ELL students had increased by almost 60 percent in that same time period.

Alaska’s ELL Population Varies from National Demographics

Nationally, Hispanic students make up about 80% of ELL students. In Alaska, about half of ELL students are American Indian/Alaska Native.

Asian/Pacific Islander students are under 10% of the Alaska student population, but make up over 20% of the ELL population.

Student Ethnic Percentages for Grade 4 Mathematics

	White	Black	Hispanic	Asian/PI	Am Ind/ AK Nat	Unclasi- fied
National Public	54	16	22	5	1	2
Alaska	50	4	7	8	24	7

Rounds to zero

NAEP Allows Comparisons to the Nation

NAEP data can be used to compare student groups within a state, the nation, and other states. The charts below compare average scale scores for various student groups in Alaska to the National Public average scale scores for those groups.

Gr. 4 Math	All Students	White	Black	Hispanic	Asian/PI	Am Ind/ AK Nat	FRL Eligible	FRL Not Eligible	ELL	NotELL	SWD
National Public	239	248	222	227	255	227	228	250	218	242	220
Alaska	237	249	225	232	236	216	226	247	202	241	218
Difference from Nation	-2	x	x	5	-19	-11	x	-3	-16	x	x

Gr. 8 Math	All Students	White	Black	Hispanic	Asian/PI	Am Ind/ AK Nat	FRL Eligible	FRL Not Eligible	ELL	NotELL	SWD
National Public	282	292	260	266	300	267	266	293	243	284	249
Alaska	283	293	268	275	282	262	269	292	243	288	247
Difference from Nation	x	x	8	9	-18	x	x	x	x	4	x

	Statistically below the national public school average
	Statistically above the national public school average
x	Not statistically different from the national public school average

FRL = Free Reduced Lunch
ELL = English Language Learner
SWD = Students with Disabilities

Note: When looking at NAEP data, it is important to note that observable differences may not be statistically significant. For NAEP to identify numbers as statistically significantly different, the chance that an observed difference is due to sampling error or measurement error must be 5% or smaller.

Alaska Changes in NAEP Math Scale Scores from 2003 to 2009 Show Improvement

NAEP scores can be used to track trends in student achievement. Grade 4 ELL math scores are the only ones to have a statistically significant decrease from 2003 to 2009. The exit criteria for ELL students changed after the 2006-2007 school year. Previously, students had to be proficient in English language for 2 years to exit ELL status. After 2006-2007, the exit criteria changed to 1 year.

Alaska Gr. 4 Math														
	All Students	White	Black	Hispanic	Asian/PI	Am Ind/ AK Nat	FRL Eligible	FRL Not Eligible	ELL	Not ELL	SWD	Not SWD	Male	Female
2003	233	242	221	228	230	218	220	241	215	237	212	237	235	231
2009	237	249	225	232	236	216	226	247	202	241	218	241	238	236
Score Gain	4	7	x	x	x	x	6	6	-13	4	6	4	3	5
Alaska Gr. 8 Math														
	All Students	White	Black	Hispanic	Asian/PI	Am Ind/ AK Nat	FRL Eligible	FRL Not Eligible	ELL	Not ELL	SWD	Not SWD	Male	Female
2003	279	290	263	263	280	259	260	285	251	283	248	284	280	278
2009	283	293	268	275	282	262	269	292	243	288	247	287	283	283
Score Gain	4	3	x	12	x	x	9	7	x	5	x	3	x	5

	Statistically significant decrease from 2003 and 2009.
	Statistically significant increase from 2003 and 2009.
x	Not statistically different from 2003 and 2009.

NAEP Math Scores Have Risen Steadily since the 1990s



*Statistically different from the 2009 National Public average scale score

Although the National Public grade 4 mathematics score did not increase in 2009, mathematics scores have steadily increased for both grade 4 and grade 8 since 1990. (Alaska's only participation in NAEP before 2003 was in the mathematics and science assessments in 1996.)

NAEP Resources:

The NAEP is a highly respected assessment and is often called "the gold standard of assessment." The NAEP Assessment Toolbox shows how NAEP questions can be used instructionally. Each question in the Toolbox is aligned to an Alaska Grade Level Expectation.

The Toolbox (and more information about the NAEP in Alaska) can be found at

<http://www.eed.state.ak.us/tls/assessment/naep.html>.

Next NAEP Administration in Alaska Will Be in the 2010-2011 School Year

The NAEP reading and mathematics assessments are administered every other year. NAEP statisticians choose schools using a carefully constructed sampling framework to select schools that demographically represent the state. The larger a school, the greater the chance the school will be selected for the NAEP. For instance, all large middle schools in Alaska participate in every administration of the reading and mathematics assessments.

In selected elementary schools, the NAEP is generally given to all fourth graders. For large middle schools, a sample of students is selected for the NAEP. That sample of students is selected at random. The six-week test window begins at the end of January; NAEP hires staff to go to schools to administer the assessment.

Each student takes a portion of the NAEP assessment. For instance, the mathematics assessment may consist of 10 blocks, but each student completes only 2 blocks. The length of the NAEP allows NAEP to gather in-depth information about student content knowledge.

No information about individual student or school performance is given for the NAEP. Only statewide results are reported for Alaska. All NAEP data can be found at <http://nces.ed.gov/nationsreportcard/>.